Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A method for use during the-ultrasonic treatment of a cancer in

subject tissue, comprising the step of:

robotically manipulating an array of two or more ultrasonic treatment probes, that are

mechanically focused onto a con-focal region, to sight said con-focal region on at least a portion

of a target tumour whose site is determined by ultrasound.

2. (currently amended) A method as claimed in claim 1, <u>further comprising</u> the further step

of-manipulating the said array to sight on one or more other focal regions of said target tumour.

3. (currently amended) A method or-claimed in claim 2, wherein said manipulations are

performed as a series of step-wise motions in one plane.

4. (currently amended) A method as claimed in any one of the preceding claims, claim 1,

further comprising the further step of determining the site of thesaid target tumour by ultrasound,

prior to the step of said robotically manipulating ansaid array.

5. (currently amended) A method or claimed in claim 4, wherein the step of said determining

thesaid site of asaid target tumour includes:

ultrasonically scanning at least a portion of subject tissue in a series of step-wise slices to

derive a pseudo three-dimensional representation thereof.

Application of: Sunita CHAUCHAN and Wan Sing NG

For: ULTRASONIC TREATMENT OF BREAST CANCER

Page 3

6. (currently amended) A method as claimed in any one of the preceding claims, claim 1,

further comprising the further step, preceding the step of said robotically manipulating ansaid

array, of by mechanically configuring said array of probes to give a desired convergent con-focal

region.

7. (currently amended) A method as claimed in any one of the preceding claims, claim 1,

<u>further</u> comprising the further step, following the step of said robotically manipulating ansaid

array, of activating said probes to ablate said portion of the said target tumour.

8. (canceled)

9. (currently amended) A method as claimed in claim [[8]] 7, wherein said-parameters

include one or more of at least one of frequency, power and on-time of said probe are adjusted.

10. (currently amended) A method as claimed in any one of the preceding claims, claim 7,

further comprising the further initial steps of, defining a safe working envelope for said robotic

manipulation step.

11. (currently amended) A method as claimed in claim 10 when dependent on at least claim

7,10, wherein said robotic manipulation is interlocked with said activation such that both

stepssaid robotic manipulation and said activation cannot occur simultaneously.

Application of: Sunita CHAUCHAN and Wan Sing NG

For: ULTRASONIC TREATMENT OF BREAST CANCER

Page 4

12. (currently amended) A method as claimed in any one of the previous claims claim 1,

further comprising the further, initial step of locating and orientating the said array and a patient

relative to each other, such that said target tumour site is within the range of motion of said array.

13. (canceled)

14. (currently amended) Apparatus for the ultrasonic treatment of cancer in subject tissue,

comprising:

an array of (i) two or more ultrasonic treatment probes, that are mechanically configurable

to be focused onto a desired con-focal region, and (ii) an ultrasonic identification probe;

a robotic manipulator, carrying said array, and operable to move said array and thus sight

said con-focal region; and

a programmed controller which operates to activate said probes and said cause motion of

said robotic manipulator in a manner such that thesaid ultrasonic identification probe is scanned

over at least a portion of thesaid tissue to determine thea site of a target tumour, and thesaid

treatment probes are sighted such that the-said con-focal region coincides with at least a portion

of the said target tumour and are activated to ablate said portion of the said target tumour.

15. (currently amended) The apparatus of claim 14, wherein said controller activates said

robotic manipulator to sight and operate thesaid treatment probes at other focal regions

coinciding with thesaid target tumour.

Application of: Sunita CHAUCHAN and Wan Sing NG

For: ULTRASONIC TREATMENT OF BREAST CANCER

Page 5

16. (currently amended) Apparatus as claimed in claim 15, wherein said controller activates

said robotic manipulator as a series of step-wise motions in one plane to sight and operate the said

treatment probes in aggregation to coincide with the said target tumour in that plane.

17. (currently amended) Apparatus as claimed in any one of claims 14 to 16,14, wherein said

robotic manipulator operates to cause thesaid identification probe to scan at least a portion of the

subject tissue as a series of step-wise slices to derive a pseudo three-dimensional representation

thereof.

18. (currently amended) Apparatus as claimed in any-one of claims 14 to 17, claim 14,

wherein said array of probes is mechanically configured to give a desired focal region matching

to the determined said site of the said target tumour.

19. (currently amended) Apparatus as claimed in claim 18, wherein said ultrasonic treatment

probes have predetermined parameters determining the thermal dose to be applied to said target

tumour.

20. (currently amended) Apparatus as claimed in any one of claims 14 to 19, claim 14, further

comprising a procedure table upon which a subject can lie, having an acoustic window therein at

which said subject tissue is sited.

21. (currently amended) Apparatus as claimed in claim 20, wherein thesaid acoustic window

is arranged to be aligned with the breast of asaid subject.

22. (currently amended) Apparatus as claimed in any one of the claims 14 to 21-in claim 14,

wherein said controller inis programmed to define a safe working envelope for the

arraymanipulation.

23. (currently amended) Apparatus as claimed in claim 22, wherein said controller further

interlocks said treatment probes and said robotic manipulator so that neither canboth cannot be

operated simultaneously.

24. (currently amended) A jig array assembly for ultrasonic treatment probes comprising:

a central shaft;

two or more segmented collars, in a stacked manner rotatably of said shaft, and adapted

to be fixed in a chosen orientation by fastening means a fastener;

a respective mounting member extending from each said collar, and providing mounting

point, said mounting point lying in a common plane orthogonal to said shaft;

a respective arm attached at the end to a respective mounting point; and

a respective probe holder attached to the other end of each said arm.

25. (currently amended) An assembly as claimed in claim 24, wherein each of said

armrespective arms are of chosen lengths.

Application of: Sunita CHAUCHAN and Wan Sing NG For: ULTRASONIC TREATMENT OF BREAST CANCER Page 7

26. (currently amended) An assembly as claimed in either one of claim 24 or claim 25,24, further comprising an identification ultrasonic probe-mounting point located at an end of the shaft.